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HEALTHCARE EQUIPMENT

PARTS DESCRIPTIONS:

PART 1 - GENERAL

1.1 EQUIPMENT AND ANESTHESIA BOOMS

The Equipment Delivery System (EDS™) is intended for use as a ceiling- mounted device to support or position equipment in the patient area. The service head contains the power outlets, gas outlets, and communications connections and can include lifetime tested, high-definition cable kit that can transport the highest resolution video signal available. All cable kits are pre-pulled for a seamless installation.

A. All equipment booms are capable of complete platform integration that meets the requirement of a unified solution (when connected to a Medical Manufactured Audio/Video Router and Control System) to provide full optimization of product features and functionality.
B. Desired equipment booms should provide front and/or rear brake controls - Combination pneumatic and friction brakes that can be controlled with Nitrogen or Compress Air.
C. Equipment booms are capable of a load bearing capacity of up to 330 pounds.
D. Equipment booms are capable of configuration of up to 16 gas outlets and 20 electrical duplex outletS.
E. Equipment booms can reach up to 80" (with vertical articulation) or 96" (non- articulating).
F. Equipment boom horizontal arms can be rotated 330 degrees.
G. Equipment boom motor arms can be rotated 330 degrees.
H. Equipment boom service heads can be rotated 340 degrees.
I. Equipment booms can support a standard shelf size of 450mm wide or 750mm wide.
J. Equipment booms have an open design of service head that allows the equipment to be managed from all sides.
K. Equipment booms have shelves that can be easily adjusted for height.
L. Equipment booms have shelves with rubber edges to protect edges and corners.
M. Equipment booms can be equipped with Fairfield Rails or U-Rails to allow for accessory attachment.

N. Equipment booms should be articulating and have an electric motor to control vertical articulation of the boom capable of 24 degrees up and 21 degrees down that allows for different pieces of equipment in the OR to be parked underneath the boom reducing the overall required footprint of necessary equipment creating more useable space in the OR.
O. Equipment booms should include the capability to offer remote diagnostics and support of compatible equipment on the boom through a manufacturers provided system.

1.2 LED SURGICAL LIGHT

Using best-in-class LEDs (Light Emitting Diodes) and a proprietary reflector design, the LED provides world-class lighting for your OR. With maximum brightness and exceptional shadow resolution as the keys to success in surgical lighting, the LED provides a large column of light and exceptional shadow resolution. This is achieved while providing pure white light that will remain cool under the most demanding conditions. The LED requires very little maintenance and no bulb changes during ownership due to long lasting LEDs.

A. LED surgical lights should be capable of complete platform integration that meet the requirement of a unified solution (when connected to
B. Medical Audio/Video Router and Control System) to provide full optimization of product features and functionality.
C. Remote diagnostics and support of surgical lights, integration, and compatible equipment attached to the lights can be provided by through a remote device management system.
D. Light output should be controlled from integration touch panel and through voice activated device control.
E. LED surgical lights are ceiling mounted.
F. LED surgical lights do not emit UV or Infrared light waves.
G. LED surgical lights provide a LUX (luminous flux density) rating of at least 160,000 which is the maximum allowed under the FDA regulations.
H. LED surgical lights will provide an adjustable field diameter that ranges from 9 to over 12 inches.
I. LED surgical lights provide a depth of field that measures up to 41 inches.
J. LED surgical lights provides outstanding shadow resolution: The design of the LED light utilizes every inch of the light head casting separate beams of light, providing a greater surface of light projection to the surgical field reducing shadows to the

absolute minimum.

K. LED surgical lights have a light head made of aluminum alloy.

L. LED surgical lights provide pure white light with an Ra value of >90 and an R9 value of 85 plus or minus 10%.

M. LED surgical lights have lens covers are made with a safety glass that will not yellow with age.

N. LED surgical lights have a use life of approximately 50,000 hours.

O. LED surgical lights are capable of 360 degree rotation.

P. LED surgical lights are UL certified and FDA approved.

Q. LED II surgical lights use 95 watts.

R. All critical components are housed in a power supply box to ensure easiest access and servicing.

1.3 IN-LIGHT CAMERA

The LED system is available with an optional in-light camera. The in-light camera engages all staff in the OR and is also beneficial in remote teaching and teleconferencing applications.

A. The in light camera is capable of complete platform integration that meet the requirement of a unified solution (when connected to the Medical Audio/Video Router and Control System, voice activated device control, and remote device management) to provide full optimization of product features and functionality.

B. The in-light surgical camera can be controlled from the integration touch panel and through voice activated device control.

C. The in-light surgical camera is a "plug and play" system.

D. The in-light camera provides at least 32x zoom capability.

1.4 FLAT PANEL MONITOR ARM

Suspensions with Flat Panel Arms should include lifetime tested, high-definition cable kit that can transport the highest resolution video signal available. All cable kits are pre-pulled for a seamless installation.

A. Flat panel arms must be capable of complete platform integration that meet the requirement of a unified solution (when connected to the Medical Audio/Video Router and Control System, voice activated device control, and remote device management) to provide full optimization of product

B. features and functionality.

C. Flat panel arms must allow for a minimum 54" of vertical adjustment.
D. Flat panel arms must provide custom molded cable plus fiber optic cable that allow for all the necessary signal types to be transmitted and displayed in their native resolutions.
E. Flat panel arms must have protective housing on the back of the yoke to protect the transformer.
F. Flat panel arms must have an adjustable yoke to hold flat screen monitors between 15"-32".
G. Flat panel arms must be UL listed as a complete system and certify the internal cabling for a period of 10 years.
H. Flat panel arm's must compact, lightweight suspension allows for easy movement.

1.5 MEDICAL AUDIO/VIDEO ROUTER CONTROL SYSTEM

Medical Audio/Video Router must be the central point for managing your OR video and surgical devices. The intuitive interface must allow you to easily control your Operating Room through features like one touch routing, surgical time-out, customizable room presets, and video multi-viewing capabilities.

A. The Medical Audio/Video Router and Control System must be capable of complete platform integration that meet the requirement of a unified solution (when connected to voice activated device control and remote device management) to provide full optimization of product features and functionality.
B. Remote diagnostics and support of the Medical Audio/Video Router and Control System and must be compatible with equipment attached to the Medical Audio/Video Router and Control System.
C. The Medical Audio/Video Router and Control System must have FDA 510K clearance.
D. The Medical Audio/Video Router and Control System must provide a one touch button for turning the Suite on/off.
E. The Medical Audio/Video Router and Control System must allow for control of a Digital Capture interface from the touch panel.
F. The Medical Audio/Video Router and Control System must provide a High Definition (HD), Digital Video Interface (DVI) preview.
G. All video signals displayed on monitors can be in DVI format.
H. Backup video signals in VGA and in S-Video are included to ensure continuous video is displayed when power is lost.
I. The Medical Audio/Video Router and Control System must be able to offer quad view allowing no more than four video signals to

be displayed on one monitor simultaneously.

J. The Medical Audio/Video Router and Control System can provide Picture-in-Picture (PIP) and Picture-by-Picture (PBP).

K. The Medical Audio/Video Router and Control System must provide a configurable card matrix open-architecture framework.

L. The Medical Audio/Video Router and Control System must provide touch panel video/data routing.

M. The Medical Audio/Video Router and Control System must provide presets to configure for surgeons or cases.

N. The Medical Audio/Video Router and Control System should route any image to any monitor with the touch of a button.

O. The Medical Audio/Video Router and Control System must provide a single Keyboard/Video/Mouse (KVM) solution for up to three (3) PCs (Nurses PC, PACS PC, etc.).

P. The Medical Audio/Video Router and Control System must connect to multiple room speakers to provide audio from multiple sources (e.g. iPod, Sirius-XM Satellite radio, etc.).

Q. The Medical Audio/Video Router and Control System must include Software controlled fans.

R. Pixel perfect feature must be included in the Medical Audio/Video Router and Control System.

S. The Medical Audio/Video Router and Control System can provide a 16:9 aspect ratio from the camera to compatible monitors.

T. The Medical Audio/Video Router and Control System must bring audio, video and data sources to a centralized point where they may be controlled and routed using a touch panel monitor.

U. The Medical Audio/Video Router and Control System must provide Any-to-Any Digital Video Signal Routing (via single, fiber optic cable to compatible monitors).

    1. Composite (Fluoro)
    2. S-Video (Microscope)
    3. RGBHV (Competitor Cameras, Hemo, PACS)
    4. 3G-SDI (Competitor Devices, DaVinci)
    5. DVI (Stryker Video, DaVinci)

V. The Medical Audio/Video Router and Control System must provide 1080p resolution (up to 1200p).

    1. 1920×1200 resolution at native resolution with no scaling required!

W. The Medical Audio/Video Router and Control System must be a Card Based system for scalability.

X. The Medical Audio/Video Router and Control System must include Surgical Checklist (time-out) Integration which engages team members during surgical time-outs by broadcasting a pre-surgical checklist to all monitor screens.

1.6 TWO-BAY NURSE DOCUMENTATION STATION

A. Dimensions: 48"W x 90"H x 37"D

B. Power: Six (6) - 20 AMP circuits.

1. One (1) circuit for quad outlet in lower section behind video router.
2. One (1) circuit for quad outlet in lower section behind light PSB (if required).
3. One (1) circuit for duplex outlet in lower section under touch panel.
4. One (1) circuit for quad outlet middle section behind digital capture device.
5. One (1) circuit for quad outlet in upper left section (if required).
6. One (1) circuit for quad outlet in upper right section (if required).
7. All documentation station circuits require critical power.

C. Data: per listed equipment.

D. Backbox: per listed equipment.

E. Contractor responsible for receiving and installing documentation station prior to manufacturer's installation of specialized healthcare equipment.

PART 2 - PRODUCTS

2.1 SURGICAL EQUIPMENT

All equipment listed in this specification shall be from one manufacturer.

A. Stryker as basis of design.

1. Stryker Communications, Tadd Farmer, 501-425-9490.
2. Stryker Tech Support, 866-841-5663.

PART 3 - EXECUTION

3.1 INSTALLATION OF SURGICAL EQUIPMENT

Install all equipment per manufacturer's recommendation. The installer must meet the equipment manufacturers' certification requirements.

3.2 EQUIPMENT PROTECTION

A. Protect equipment per manufacturer's recommendations.

B. Maintain protection in good condition until removal is approved by Resident Engineer.

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